

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently amended) A pharmaceutical composition for oral delivery of a cephalosporin comprising:
  - a) a ~~biopolymer composition consisting of;~~
    - (i) a biopolymer;
    - (ii) ~~b) an antimicrobial agent consisting of a at least one cephalosporin, wherein the antimicrobial agent is entrained within or ionically bound to the biopolymer;~~
    - (iii) ~~c) a at least one metal cation entrained within or ionically bound to the biopolymer or the cephalosporin; and~~
  - b) d) an absorption enhancer.
3. (Previously presented) The pharmaceutical composition of claim 2 wherein the biopolymer is selected from the group consisting of carrageenan, xylan, chitin, chitosan, chondroitin sulfate, sodium alginate, carboxymethylcellulose, pectin, polysaccharides, polypropylene glycols, polyethylene glycols, polyacetates, liposomes, fatty acid complexes, cyclodextrins, cycloamyloses, clathrates, cycloalkyl amyloses, polyxylose, polylactic acids and combinations thereof.
4. (Canceled)
5. (Currently amended) The pharmaceutical composition of claim 2 wherein the cephalosporin is selected from the group consisting of ceftiofur, cefipime, cefixime, cefoperazone, cefotaxime,

cefpodoxime, ceftazidime, ceftizoxime, ceftriaxone, cefpirome, cefclidin, cefmenoxime, cefozopran, and combinations thereof.

6. (Withdrawn) The pharmaceutical composition of claim 4 wherein the aminoglycoside is selected from the group consisting of amikacin, gentamicin, tobramycin, polymixin-B, streptomycin, kanamycin and combinations thereof.

7. (Withdrawn) The pharmaceutical composition of claim 4 wherein the glycopeptide is selected from the group consisting of vancomycin, dalbavancin, oritavancin and combinations thereof.

8. (Withdrawn) The pharmaceutical composition of claim 4 wherein the carbapenem is selected from the group consisting of meropenem, imipenem, MK0826, R-115,685, J-114,870 and CP5068.

9. (Withdrawn) The pharmaceutical composition of claim 4 wherein the monobactam is aztreonam or carumonam.

10. (Withdrawn) The pharmaceutical composition of claim 4 wherein the penicillin is piperacillin or amoxicillin.

11. (Withdrawn) The pharmaceutical composition of claim 4 wherein the glycopeptide is vancomycin.

12. (Previously presented) The pharmaceutical composition of claim 5 wherein the cephalosporin is ceftriaxone.

13. (Withdrawn) The pharmaceutical composition of claim 4 wherein the lipopeptide is daptomycin.

14. (Previously presented) The pharmaceutical composition of claim 2 wherein the metal cation is selected from the group consisting of calcium, magnesium, lithium, iron, copper, zinc, aluminum, manganese, chromium, cobalt, nickel, and combinations thereof.

15. (Previously presented) The pharmaceutical composition of claim 12 wherein the metal cation is calcium.

16. (Previously presented) The pharmaceutical composition of claim 12 wherein the metal cation is zinc.

17. (Previously presented) The pharmaceutical composition of claim 2 wherein the metal cation is ionically bound to the biopolymer forming a metal cation-biopolymer complex and the cephalosporin is contained within the metal cation-biopolymer complex.

18. (Previously presented) The pharmaceutical composition of claim 2 wherein the metal cation is ionically bound to the cephalosporin forming a metal cation-cephalosporin complex and the metal cation-cephalosporin complex is contained within the biopolymer.

19. (Previously presented) The pharmaceutical composition of claim 2 wherein the metal cation is complexed to the cephalosporin and the metal cation is further ionically bound to the biopolymer forming a cephalosporin-metal cation-biopolymer bridge.

20. (Previously presented) The pharmaceutical composition of claim 2 wherein the biopolymer is carrageenan or pectin.

21. (Previously presented) The pharmaceutical composition of claim 15 or 20 wherein the carrageenan has a calcium content of less than about 0.4% by weight.

22. (Previously presented) The pharmaceutical composition of claim 2 wherein the biopolymer is carrageenan, the cephalosporin is ceftriaxone, the metal cation is calcium and the absorption enhancer is a non-ionic surfactant.

23 to 41 (Canceled)

42. (Previously presented) The pharmaceutical composition of claim 1, wherein the cephalosporin is a third generation cephalosporin.